Product Name: p44/42 MAPK (Erk1/2) Mouse Monoclonal Antibody
Catalog #: AMM80822

Summary

Production Name	p44/42 MAPK (Erk1/2) Mouse Monoclonal Antibody
Description	Mouse monoclonal Antibody
Host	Mouse
Application	WB,IHC,ICC,ELISA,FC
Reactivity	Human,Mouse,Rabbit

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG2b
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	PBS containing 0.03% sodium azide.
Purification	Affinity Purification

Immunogen

Gene Name	MAPK (Erk1/2)
Alternative Names	ERK; p38; p40; p41; ERK2; ERT1; MAPK2; PRKM1; PRKM2; P42MAPK; p41mapk; MAPK1
Gene ID	5594.0
SwissProt ID	P28482.Purified recombinant fragment of human MAPK expressed in E. Coli.

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:500,ICC 1:50-1:500,ELISA 1:5000-1:20000,FC 1:200-1:400
Molecular Weight	42 , 44kDa

Background

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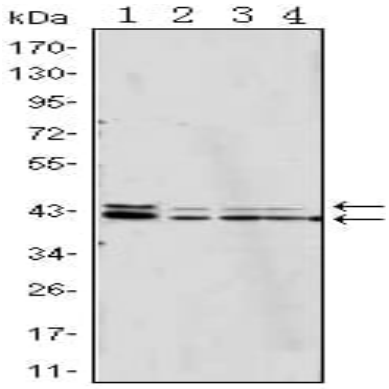
Mitogen-activated protein kinases (MAPKs) are a widely conserved family of serine/threonine protein kinases involved in many cellular programs such as cell proliferation, differentiation, motility, and death. The p44/42 MAPK (Erk1/2) signaling pathway can be activated in response to a diverse range of extracellular stimuli including mitogens, growth factors, and cytokines and is an important target in the diagnosis and treatment of cancer. Upon stimulation, a sequential three-part protein kinase cascade is initiated, consisting of a MAP kinase kinase kinase (MAPKKK or MAP3K), a MAP kinase kinase (MAPKK or MAP2K), and a MAP kinase (MAPK). Multiple p44/42 MAP3Ks have been identified, including members of the Raf family as well as Mos and Tpl2/Cot. MEK1 and MEK2 are the primary MAPKKs in this pathway. MEK1 and MEK2 activate p44 and p42 through phosphorylation of activation loop residues Thr202/Tyr204 and Thr185/Tyr187, respectively. Several downstream targets of p44/42 have been identified, including p90RSK and the transcription factor Elk-1. p44/42 are negatively regulated by a family of dual-specificity (Thr/Tyr) MAPK phosphatases, known as DUSPs or MKPs, along with MEK inhibitors such as U0126 and PD98059.

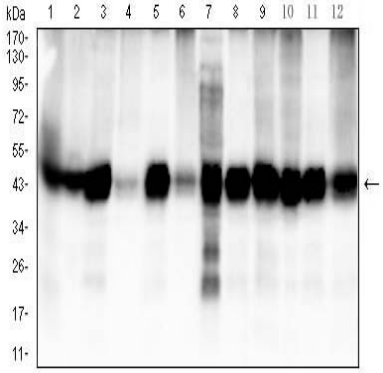
Research Area

Apoptosis,TGF-beta signaling pathway,PI3K-Akt signaling pathway,MAPK signaling pathway,Jak-STAT signaling pathway

Image Data



Western blot analysis using p44/42 MAPK mouse mAb against Jurkat (1), Hela (2), A431 (3) and NIH/3T3 (4) cell lysate.



Western blot analysis using p44/42 MAPK (Erk1/2) mouse mAb against Rat liver(1)mouse liver (2) PC-12(3) Raw264.7 (4)

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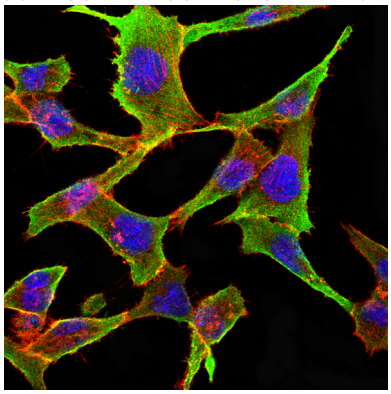
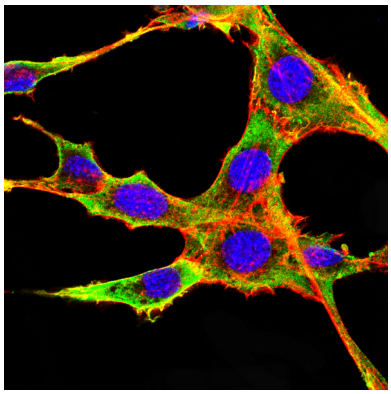
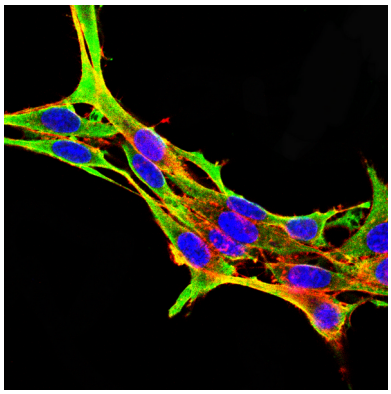
NIH/3T3(5) NRK(6) C2C12(7) C6(8) L1210(9) F9 (10) COS-7 (11) CHO3D10(12) cell lysate.



Immunofluorescence analysis of COS7 cells using p44/42 MAPK (Erk1/2) mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin.



Immunofluorescence analysis of NIH/3T3 cells using p44/42 MAPK (Erk1/2) mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin.



Immunofluorescence analysis of PC-12 cells using p44/42 MAPK (Erk1/2) mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin.

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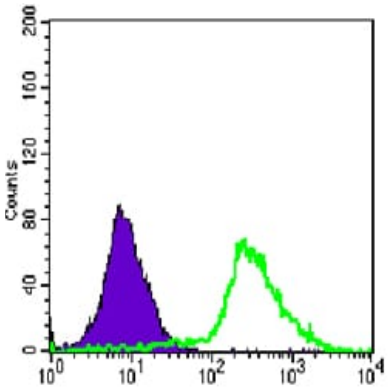
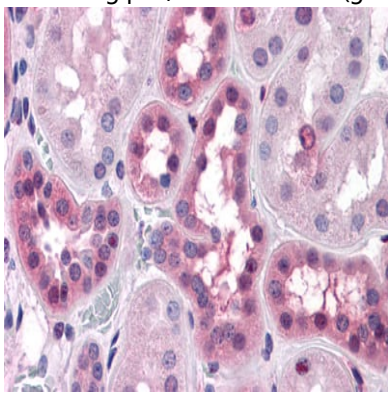
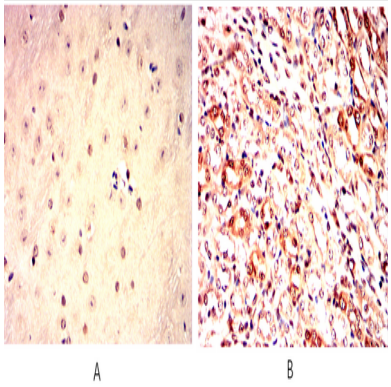


Flow cytometric analysis of Jurkat cells using p44/42 MAPK mAb (green) and negative control (purple).



Immunohistochemical analysis of paraffin-embedded human Liver tissues using anti p44/42 MAPK (Erk1/2) mouse mAb



Immunohistochemical analysis of paraffin-embedded Mouse brain(A)Mouse kidney(B) using p44/42 MAPK (Erk1/2) mouse mAb with DAB staining.

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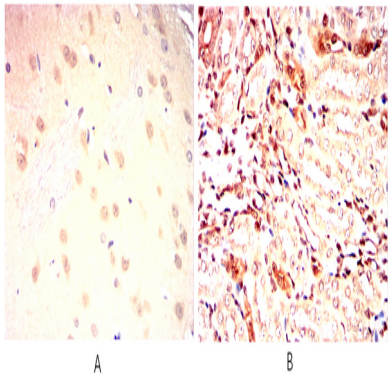

Immunohistochemical analysis of paraffin-embedded Rat liver(A)Rat kidney(B) using p44/42 MAPK (Erk1/2) mouse mAb with DAB staining.

Note

For research use only.